



Human Factors

research and technology division



Aerospace and Aeronautics Maintenance Procedures

Objective

To develop procedures and innovations to clarify the roles and responsibilities of spacecraft and aircraft maintenance teams; reduce accidents associated with human error; and enhance safety and effectiveness in maintenance operations.

Approach

Collaborative working groups comprising both space and aeronautics maintenance teams work to develop improved procedures; to advance the understanding of maintenance tasks and develop tools needed to support those tasks; to improve the inspection process; to provide a means of analyzing incidents; to apply crew resource management (CRM) skills and training to maintenance teams; and to develop advanced tools necessary for maintenance aiding.



Impact

Maintenance errors can have a devastating effect on safety and efficiency of operations. By developing improved procedures and documenting design and task analysis tools, this research area will help the industry to establish standards and performance metrics to improve the quality of maintenance operations. By applying the lessons of CRM to maintenance teams, the industry can improve their training of team members for more effective communication and coordination. By developing advanced displays, maintenance team members can be provided an intuitive understanding of the steps to be taken, thereby significantly reducing the time currently required to perform these tasks.

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URL: <http://humanfactors.arc.nasa.gov/ihs.html>

